

Lions in a Uganda park make a perilous journey across a 1.5 km stretch of water to find mates

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Domestic cats will do almost anything to avoid contact with water. Not



so for their wild cousins, though. Lions, tigers and jaguars have had to adapt to water and sometimes take the plunge for survival.

And this is what we observed on the late evening of 1 February 2024. Our research team in Uganda filmed two male lions swimming in a waterway in the <u>Queen Elizabeth National Park</u>. But what was unusual was the distance and the danger: the lions swam an estimated 1.5km across the Kazinga Channel, which connects two lakes in the <u>park</u>. The channel has a high density of hippos and Nile crocodiles, which are known to attack lions.

The footage, caught on a high-resolution thermal camera, shows the lions making three attempts across the 6 meter deep channel (and returning to shore), before starting to swim towards the south of the park.

The swim is as remarkable in illustrating the physical strength of the animals, as it is a symptom of a deeper problem—of male lions having to take extraordinary risks to find lionesses.

We are four researchers with over 50 years of combined experience in conservation, big cat ecology, and the complexities of people and wildlife living together. One of us (Alexander) led the field team that filmed this event.

Our long-term research in Uganda's Queen Elizabeth National Park shows that <u>sex ratios for lions there are flipped towards males at a 2:1</u> <u>ratio</u>. A healthy <u>lion</u> population would be <u>female dominated</u> instead. From monitoring these male lions almost daily, our field team has observed them swimming across this channel seven times in the space of a year.

In our <u>new scientific paper</u> we suggest that the male lions are making the risky swims, braving crocodiles and hippos, to find females. They are



not always successful in finding mates, and when they get battered by resident males, they swim back to their own territory. There is also a small chance that the lions are swimming to avoid a human community located at the only formal crossing point connecting the two parts of the park, a narrow, 40-meter-long bridge near a village.

Park managers and conservation NGOs in the park now need to find innovative ways to stabilize the female population and stem the decline of lions overall.

Big cats and water regularly mix

Some big cats have a strong affinity for water. Jaguars in the <u>Brazilian</u> <u>Pantanal</u> and the <u>western Brazilian Amazon</u> regularly catch and kill caimans (the South American cousin of the African Nile crocodile). Another population on the beaches of Costa Rica's Tortuguero National Park hunts sea turtles.

Asiatic tigers have been filmed swimming across rivers in India and Russia, playing in pools, and hunting in water. One study even shows water is a key factor in their welfare.

When it comes to African lions, one population is particularly fond of swimming in and even hunting in water—the <u>lions of Botswana's</u> <u>Okavango Delta</u>. Especially during the flood season, resident lions regularly swim short distances across channels or wade across inundated floodplains.

Braving crocodile and hippo encounters is almost a daily occurrence, and even cubs as young as two months old are forced to take to the water as the prides navigate their waterlogged territories in search of hunting opportunities. While they don't particularly enjoy these crossings, they have adapted to their flooded homes out of necessity. Most of these



crossings, though, are less than a few hundred meters.

Lions in <u>Tanzania</u> and Zambia's Victoria Falls have also been known to swim a few hundred meters.

But we could find no evidence of lions anywhere in Africa or Asia engaging in long distance swims.

The footage of the two male lions swimming across the Kazinga channel is therefore remarkable.

Long swim tells a bigger story

The swimming behavior points to an increasing global trend: animals are taking greater risks to find mates, food and new homes.

In South Africa, biologists <u>tracked a 352km journey</u> of an 18-month-old male leopard as he crossed three countries in his attempt to find territory. He was eventually killed in a snare in eSwatini.

A mountain lion in the US, <u>P22</u>, crossed a 10-lane freeway in Los Angeles.

And a herd of Asian elephants was recently documented <u>crossing nearly</u> <u>500km</u> across farms and rural towns in southern China, likely to find a new home with better access to food.

To connect or to manage

Conservation practitioners and the public are often left with two choices: let wildlife move and hope for the best, or help them get where they need to be.



Monarch butterflies migrate tremendous distances between North and Central America with no conservation intervention. In some places, like the Kavango-Zambezi Transfrontier Conservation area, which encompasses 36 formally protected areas between Angola, Zambia, Zimbabwe, Botswana and Namibia, <u>lions may still be able to move freely</u> <u>between national parks</u> in areas of low human density.

Once human populations reach a certain threshold, however, conflict between people and lions may arise. Maintaining corridors requires <u>action</u> to reduce conflict and keep corridors open.

The other option is to actively help wildlife get to habitats and mates that will ensure their populations persist. For example, management authorities <u>moved lions between populations, and even culled them</u>, in South Africa to manage their populations.

In other areas, conservationists have <u>reintroduced lions</u> or <u>restored</u> them to parts of their range. But they can only do so in fenced or heavily managed parks.

The challenge for Uganda's Queen Elizabeth National Park is how to restore the female population. A combination of bad luck and human threats led to unnatural losses of females including two recent poisoning events, and even an electrocution event where three lionesses were killed. Any lion conservation strategy has to keep the people that live closely with them in mind.

More information: A. Braczkowski et al, Long-distance swimming by African lions in Uganda, *Ecology and Evolution* (2024). <u>DOI:</u> <u>10.1002/ece3.11597</u>

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